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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,492	05/16/2006	Dietrich Haarer	2007_1959	1654

7590 04/10/2009
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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT	PAPER NUMBER
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2855

MAIL DATE	DELIVERY MODE
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04/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,492	HAARER ET AL.	
	Examiner	Art Unit	
	Gail Verbitsky	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 0121.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-27, 30-38 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura (U.S. 5382125) in view of Arens.

Tamura discloses a device (combined with a bar code reader) / method in the field of applicant's endeavor wherein time of thermal exposure (thermal history/ TTI/ total time of exposure) of a product (object) is determined by a machine reader/ barcode reader (optical probe/ display) having a light/ beam source whose light either reflected or transmitted through a label on a food of interest or the label could be irradiated with wavelength absorbed/ transmitted/ reflected by the label (abstract). The machine reader detecting the intensity of the reflected or transmitted (and thus emitted by the label) light. It is inherent that the barcode reader would translate data in at least electrical or optical form. The barcode reader inherently comprising means (control unit, inherently preprogrammed) for translating the light (spectral properties) and generating a response (communication utility, circuit) indicative of the condition of the label (col. 2, lines 48) in a form of an output signal (electrical/ optical). When the object was exposed to an extremely high temperature, the operator is alarmed. The object is initialized/ stimulated with an application of heat (or quench). The device is indicative of inappropriately high

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temperature for a longer than normal time. This would imply that the device is indicative, that the object does not have shelf life left (cannot be any longer on shelf) since it could be harmful for a consumer.

Tamura teaches: An embodiment of the present invention will be described hereinafter.

A temperature indicator which responds to temperature partly or wholly to change its color is first provided and a temperature control material in which information is set by this temperature indicator is provided. That is, an object to be read such as a code or mark which can be read mechanically is printed or coated with a temperature indicator which responds to temperature, or printed on a label with a thermal head by a heat transfer printing method, and the label is pasted on an article whose temperature is to be controlled. Alternatively, the code or mark is printed directly on an article whose temperature is to be controlled. The temperature indicator is a material whose density changes by temperature, and a material whose developed color density differs according to temperature is used. A rewritable material can be used and the following materials are given as examples of the rewritable material.

This would imply that the label of Tamura is color changing in response to temperature, and thus photochromic (color changing/ certain color saturation/ density change, as the result of light/ temperature) material. Tamura teaches to digitize the data corresponding to the quantity of light (entire col. 10, Fig. 8), thus, obtaining a digital **(quantitative)** data corresponding to the quantity of the reflected light.

Tamura is not explicit about determining the shelf life/ remaining life of the object/ product.

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Arens teaches that a machine readable data/ barcode could be used to determine the remaining shelf life of a food product.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Tamura, so as to use the data received by a barcode reader in order to determine the remaining shelf life of the food, as taught by Arens, in order to allow the operator to take necessary actions in a timely manner, as very well known in the art.

With respect to “whereby”/”thereby”, as stated in claims: it has been held that the functional “whereby” statement does not define any structure and accordingly cannot serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

Claim 28 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura and Arens, as applied to claims 22-27, 30-36 above, and further in view of Zalameda et al. (U.S. 200301939870 [hereinafter Zalameda]).

Tamura and Arens disclose a device/ method in the field of applicant's endeavor as stated above. They teach that the device should be stimulated with heat/ light.

They do not teach the particular light source to illuminate the device, the light source being a flash lamp.

Zalameda teaches to determine time temperature data of a sample wherein the sample is irradiated with a flash lamp and reflected or transmitted light is detected by a light detector and it is indicative time-temperature profile of the sample.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Tamura and Arens, so

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as to irradiate the device with a flash lamp, so as to provide more heating of the device in order to obtain a detectable response/ reflection, as very well known in the art.

Claims 21-27, 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helmer et al. (U.S. 20050139686) [hereinafter Helmer] in view of Tamura and Arens et al. (U.S. 5667303) [hereinafter Arens].

Helmer discloses a device (combined with a machine reader) for use in controlling the quality of a perishable object, while progressing on its supply line, by monitoring the change in color (discoloration) of a changing color (photochromic) time-temperature indicator (TTI) associated with the object/ food, the device comprising:

which TTI is attached to and calibrated to the perishable object, and wherein the photochromic TTI is a machine readable,

a detector/ eye or a reading machine to read the TTI by measuring the color change (degree of discoloration), and having means (control unit and communication utility/ circuit) that translates the data and generates a measured data corresponding to the condition of the photochromic TTI, and

wherein the measured data enables a determination of the status of the food to indicate that the content is deteriorated (para [0024]).

Helmer does not teach the particular machine reader comprising a light source and receiving the light emitted from the label, and determination of the shelf-life of the food object, as claimed by applicant.

Tamura teaches a machine reader for irradiating the label with a light machine reader/ barcode reader (optical probe) having a light/ beam source whose light either reflected or transmitted through a label on a food of interest or the label could be irradiated with wavelength absorbed/ transmitted/ reflected by the label (abstract). The machine reader detecting the intensity of the reflected or transmitted (and thus emitted by the label) light. It is inherent that the barcode reader would translate data in at least electrical or optical form. The barcode reader inherently comprising means (control unit)

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for translating the light (spectral properties) and generating a response indicative of the condition of the label (col. 2, lines 48) in an output signal. When the object was exposed to an extremely high temperature, the operator is alarmed. The object is initialized/ stimulated with an application of heat (or quench). The device is indicative of inappropriately high temperature for a longer than normal time. This would imply that the device is indicative, that the object does not have shelf life left (cannot be any longer on shelf) since it could be harmful for a consumer. Tamura teaches to digitize the data corresponding to the quantity of light (entire col. 10, Fig. 8), thus, obtaining a digital **(quantitative)** data corresponding to the quantity of the reflected light.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Helmer, so as to replace the machine reader, disclosed by Helmer, with the machine reader reading the quantitative data representing the quantity of light, as taught by Tamura, because both of them are alternate types of the machine readers which will perform the same function of reading the data corresponding to the temperature of the food product, if one is replaced with the other.

Arens teaches that a machine readable data/ barcode could be used to determine the remaining shelf life of a food product.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Helmer, so as to use the data received by a barcode reader in order to determine the remaining shelf life of the

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food, as taught by Arens, in order to allow the operator to take necessary actions in a timely manner, as very well known in the art.

Response to Arguments

Applicant's arguments filed 01/21/09 have been fully considered but they are not persuasive. The arguments are also moot in view of the new ground of rejection necessitated by the amendment.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

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Jackson (U.S. 3591810) discloses a photochromic indicator/ material whose change in light transmittance is corresponding to a temperature of the device it is attached to. A voltage measuring device 19 indicates a voltage (quantity) indicative of the temperature.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gail Verbitsky whose telephone number is 571/ 272-2253. The examiner can normally be reached on 7:30 to 4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571/ 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GKV

*Gail Verbitsky
Primary Patent Examiner, TC 2800*

April 07, 2009

/Gail Verbitsky/
Primary Examiner, Art Unit 2855

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